--signal-- and change "detected signal" to --(digital)--;
line 15, delete "light";
line 17, change "a voltage-pulse" to --an analog-digital form pulse--.
Page 17, line 5, change "precise analyzing of environment" to --particle counting and measuring-- and change " "N" (" to --at least one of a plurality ("N",-- and after ")" insert --of--;
line 6, change "a" to --at least one of a plurality of -- and change "system 13," to --systems.--;
line 9, after "(RDS-n)." insert --A plurality of remote data processing and control systems is presented on Fig.10 by a single remote data processing and control system 13.--.

A4

Page 18, line 10, change "environment" to --particles--.
Page 19, line 7, after "56." insert --The control signal can provide, for example, possibility to switch "on/off", to switch "run/stop", to select and change the particle counting and measuring channels, to provide remote sensor diagnostics, to switch the mode (regime) from particle counting and measuring to concentration determination, to select and change the modes for the particle flow velocity, environmental temperature and/or humidity determination, etc.--.

A5

Page 20, line 18, after "67" insert --(if the primer signals from the light detecting means 67 are the current value signals)--;

A6

line 19, delete "I - an output current of the".
Page 21, delete line 1 in its entirety;
line 2, delete "signals),";
line 3, change "principles can be" to --principles it can be --;
line 12, 13 change "voltage-pulse" to --analog-digital form pulse--;
line 18, after "within" insert --the-- and change "is meaning" to --means--.
Page 22, line 3, change "The longer strobe pulse package (the bigger" to --The more strobe pulses within a strobe pulse package (the larger--;

A7

line 10, change "Also" to --Further,--.
Page 24, line 14, delete "real";
line 15, after "creating" insert --in the known prior art-- and after "wire" insert --(electrical cable)-- and change "system with the microproces-" to --means to--;
line 16, change "sor" to --the-- and change "system in the known prior art" to --means--;
line 17, change "of the" to --and-- and change "communicating and" to --communicating--;
line 18, change "detecting system" to --sensor--.
Page 25, line 1, change "approaching" to --accessible--.

In the Claims:

Cancel Claims 15-17 in their entirety.
Cancel Claims 1-14,18-20 and substitute new Claims 21--37, as follows:

A8

21. A method for counting and measuring particles includes the steps of:

A

detecting said particles by a wireless communicating remote detecting system, comprising a wireless communication means and a particle detecting system;

forming in said particle detecting system a data, containing an information about a quantity and/or size of said particles;

conversing said data to a form, which is acceptable for a wireless communication of said wireless communicating remote detecting system with a wireless communicating remote data processing and control system, including a wireless communication means and a microprocessor system;

wireless communicating between said wireless communicating remote detecting system and said wireless communicating remote data processing and control system;

processing of said data by said wireless communicating remote data processing and control system.

22. The method of claim 21, wherein said wireless communication means of said wireless communicating remote detecting system and said wireless communication means of said wireless communicating remote data processing and control system provide a two-way wireless communication.

23. The method of claim 22, wherein said two-way wireless communication is provided by a transmitting-receiving means of said wireless communication means of said wireless communicating remote detecting system via an aerial means of said wireless communication means of said wireless communicating remote detecting system and by a transmitting-receiving means of said wireless communication means of said wireless communicating remote data processing and control system via an aerial means of said wireless communication means of said wireless communicating remote data processing and control system.

Q8 cont.

24. The method of claim 22, wherein said two-way wireless communication provides:

a transmitting of a control signals from a wireless communicating remote data processing and control system to a wireless communicating remote detecting system;

a receiving of said control signals by said wireless communicating remote detecting system;

a transmitting of a data, containing an information about particle quantity and size, from said wireless communicating remote detecting system to said wireless communicating remote data processing and control system;

a receiving of said data by said wireless communicating remote data processing and control system.

25. An apparatus for particle counting and measuring, including at least one of a plurality of wireless communicating remote detecting systems and at least one of a plurality of wireless communicating remote data processing and control system, which comprises:

a microprocessor system, including a terminal means, a conversion means of said microprocessor system, a microprocessor means, which are connected to each other by a multiplexed bus;

a wireless communication means, including a transmitting-receiving means, comprising a transmitting means and a receiving means, and an aerial means connected to said

A

transmitting-receiving means.

26. The apparatus of claim 25, wherein said terminal means includes at least one of a displaying means, a floppy disk means, a compact disk means, a printing means and a control panel connected to each other by said multiplexed bus.

27. The apparatus of claim 25 wherein said conversion means of said microprocessor system is connected to a said transmitting-receiving means of said wireless communication means.

28. The apparatus of claim 25, wherein said microprocessor system is connected to said wireless communication means.

29. The apparatus of claim 25, wherein said multiplexed bus is presented by a data bus and an address bus.

30. The apparatus of claim 25, wherein said at least one or each of said plurality of wireless communicating remote detecting systems comprises:

a wireless communication means, including a transmitting-receiving means, comprising a transmitting means and a receiving means, and an aerial means connected to said transmitting-receiving means;

a particle detecting system, including a particle detecting means connected to a signal processing system, which is connected to a conversion system connected to a said transmitting-receiving means of said wireless communication means of said wireless communicating remote detecting system.

a8 cont.

31. The apparatus of claim 30, wherein said particle detecting means includes a tubular means, coupling a detection means and an environment assaying control means, and wherein said detection means is connected to a detected signal processing means, and wherein said environment assaying control means is connected to a signal processing means and to a control means.

32. The apparatus of claim 30, wherein said signal processing system includes a signal processing means connected to a detected signal processing means, to said conversion system and to a control signal conversion means, which is connected to a control means.

33. The apparatus of claim 30, wherein said conversion system includes a conversion means connected to a coding-decoding means of said conversion means.

34. The apparatus of claim 30, wherein said particle detecting system is connected to said wireless communication means.

35. An apparatus for particle counting and measuring, providing a timing processing of a detected signals, containing an information about the particle quantity and size, includes a detected signal processing means and a signal processing means, connected to each other.

36. The apparatus of claim 35, wherein said detected signal processing means comprises a

A